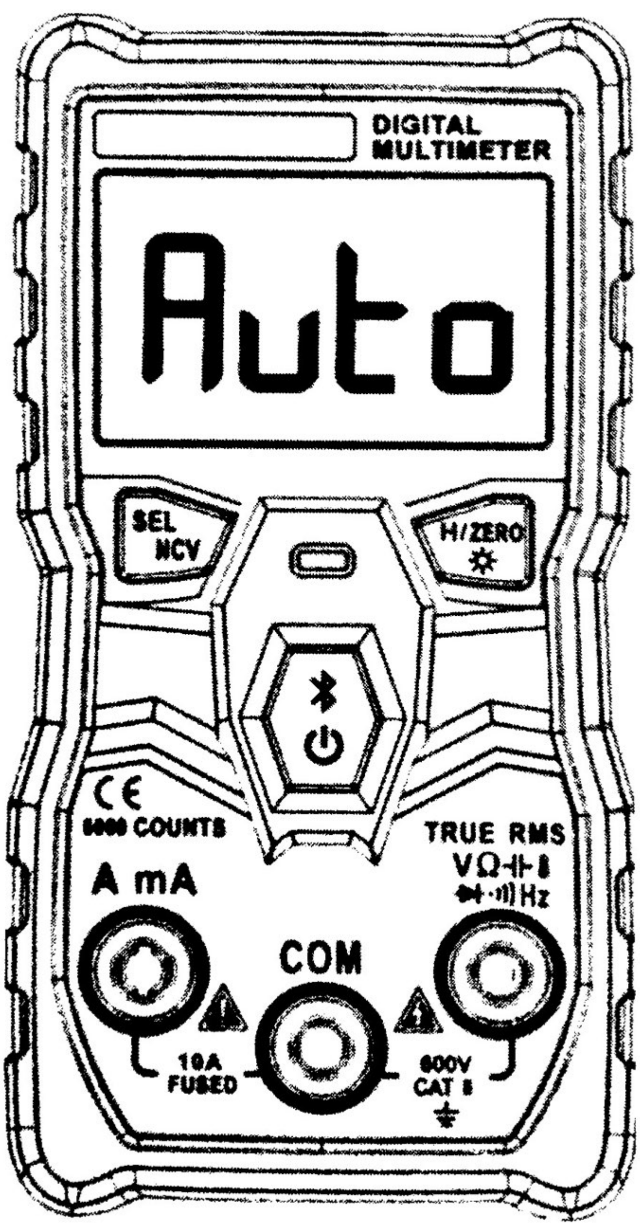
User Manual



Specifications are subject to change without notice.

Introduction

This product is a battery-powered, auto-ranging, true RMS digital multimeter with a 6000 counts LCD display.

Safety Information

To avoid possible electrical shock, fire, or personal injury, please read all safety information before you use the product. Please use the product only as specified, or the protection supplied by the product can be compromised.

- Examine the case before you use the product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.
- The measurement must be made **within the allowable measuring range**.
- Do not use the product around explosive gas, vapor, or in damp or wet environments.
- When the voltage to be measured exceeds 36V DC or 25V AC, the operator shall be careful enough to avoid electric shock.
- Misuse of mode or range can lead to hazards, be cautious. "OL" will be shown on the display when the input is out of range.
- Low level of a battery will result in incorrect readings. Change the batteries when battery level is low. Do not make measurements when the battery door is not properly placed.

Instruction *Buttons*

	Push this button over 2 seconds to turn on or turn off the product. The product automatically powers off after 15 minutes of inactivity and the built-in beeper beeps 5 times 1 minute before auto power off. To cancel auto power off, push NCV before turning on the product, after 5 beeps to cancel the auto power off successfully. Short push this button to open Bluetooth , the Bluetooth symbol shows on the screen means Bluetooth function opened , can link to E-bull app on the mobile; Short push again to turn off this function.
	Push once to hold the current reading on the display; Push for more than 2 seconds to turn on the flashlight backlight. And long-push again to turn off. In capacitance mode, it can clean the reading on the screen.
	Keep pushing this button to enter the NCV testing mode. In this mode, you have to push the button always. It cannot use NCV function when you put the leads in the current terminal. You can change modes between continuity/diode, capacitance and frequency.

Measurements

Measure DC/AC Voltage (>0.8V)

1. Only when the voltage is higher than 0.8V, this product will show the display.

2. Put the red lead into the VΩ-||- ▶|·)))Hz terminal, put the black lead to the COM terminal.

3. The DC or AC voltage will be auto matched.

4. Touch the probes to the correct test points of the circuit to measure the voltage.

5. Read the measured voltage on the display.

Measure Resistance

1. Put the red lead into the VΩ-||- ▶|·)))Hz terminal, put the black lead to the COM terminal.
2. The resistance measure will be auto matched.
3. Touch the probes to the desired test points of the circuit to measure the resistance.
4. Read the measured resistance on the display.

Test for Continuity/Diode

1. Put the red lead into the VΩ-||- ▶|·)))Hz terminal, put the black lead to the COM terminal
2. Press SEL/NCV button to enter continuity and diode mode.
3. Touch the probes to the desired test points of the circuit.
4. The built-in beeper will beep when the resistance is lower than 50Ω, which indicates a short circuit while the central LED light will light .
5. Diode test: touch the red probe to the positive electrode of the diode to be measured, the black probe to the negative, then read the forward bias value which showed on the screen. If connect the wrong electrode or the diode are damaged, “OL” will be showed on the screen.

Test for capacitance

1. Connect the black test lead to the COM Terminal and the red lead to the VΩ-||- ►•))) Hz Terminal
2. Push SEL/NCV two times to enter the Capacitance Mode
2. Connect the red probe to the anode side and the black probe to the cathode side of the capacitor being tested.
3. Read the measured capacitance value on the display once the reading is stablized.

Test for frequency

1. Connect the black test lead to the COM Terminal and the red lead to the H/ZERO ☼ Terminal
2. Push SEL/NCV three times to enter the frequency Mode
3. Touch the probes to the correct test points of the circuit to measure the frequency.
4. Read the measured frequency on the display

Test for NCV

1. Keep pushing the NCV button to enter the NCV mode.
2. Hold the product and move it around, the built-in beeper will beep when the inner sensor detects AC voltage nearby. The stronger the voltage is, the quicker the beeper beeps while the central LED light will twinkle.

Test for Current

1. Put the red lead to **A mA** terminal and put the black lead to COM terminal. The current measure will be auto matched when you put the leads in.

2. Touch the probes to the correct test points of the circuit to measure the current.
3. Read the measured current on the display.
4. When you input the current over 2 AMP, the testing time should be less than 3 seconds.
5. When the probes are in the current terminal but you have no operations, this product will alarm each 4 seconds to remind that you are in the current mode.

Test for temperature

1. Put the red lead to VΩ terminal and put the black lead to COM terminal.
2. Push SEL/NCV four times to enter the temperature mode.
3. Touch the probes to the desired test points.
4. Read the measured temperature on the display.

Bluetooth connect

1. Short push red button to open the Bluetooth function;
2. Open the E-bull app on the mobile , link this product at the interface of the choosing multimeters;
3. Start testing, the value also show on the E-bull.

Specifications

General Specifications			
Display	6000 counts	Ture RMS	√
Ranging	Auto	Data Hold	√
Material	ABS	Backlight	√
Update Rate	3 / s	Flashlight	√
Low Battery Indication	√	Auto Power Off	√
Bluetooth	√		

Environmental Specifications

Operating	Temperature	0~40℃
	Humidity	＜75%
Storage	Temperature	-20~60℃
	Humidity	＜80%

Electrical Specifications

Function	Range	Resolution	Accuracy	Max
DC VOLTAGE (V)	6.000V	0.001V	±(0.5%+3)	600V
	60.00V	0.01V		
	600.0V	0.1V		
	600V			
AC Voltage (V)	6.000V	0.001V	±(1.0%+3)	600V
	60.00V	0.01V		
	600.0V	0.1V		
AC current (mA)	999.9mA	0.1mA	±(2.0%+3)	9.999A
AC current (A)	9.999A	0.001A		
DC current (mA)	999.9mA	0.1mA	±(1.0%+4)	9.999A
DC current (A)	9.999A	0.001A		
Resistance	6.000kΩ	0.001kΩ	±(1.5%+3)	40MΩ
	60.00kΩ	0.01kΩ	±(1.0%+3)	
	600.0kΩ	0.1kΩ		
	6.000MΩ	0.001MΩ		
	60.00MΩ	0.01MΩ	±(1.5%+3)	

Capacitance	6.000nF	0.001nF	±(5.0%+20)	4mF
	60.00nF	0.01nF	±(3.5%+4)	
	600.0nF	0.1nF		
	6.000μF	0.001μF		
	60.00μF	0.01μF		
	600.0μF	0.1μF		
	6.000mF	0.001mF	±(5.0%+5)	

Frequency	6.000Hz	0.001Hz	±(1%+2)	10MHz
	60.00Hz	0.01Hz		
	600.0Hz	0.1Hz		
	6.000KHz	0.001KHz		
	60.00KHz	0.01KHz		
	600.0KHz	0.1KHz		
	6.000MHz	0.001MHz		
	10.00MHz	0.01MHz		

Continuity/Diode	√
NCV	√
Temperature	-20℃-1000℃/-4°F-1832°F ±(3%+5)
Frequency response at AC modes: 40Hz ~ 1kHz	

LIMITED WARRANTY AND LIMITATION OF LIABILITY

Customers enjoy one-year warranty from the date of purchase. This warranty does not cover fuses, disposable batteries, damage from misuse accident, neglect, alteration, contamination, or abnormal conditions of operation or handling, including failures caused by use outside of the product's specifications, or normal wear and tear of mechanical components.